



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/730,110

12/09/2003

Takeshi Morikawa

032567-020

5434

21839 7590 01/26/2010
BUCHANAN, INGERSOLL & ROONEY PC
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER

MILIA, MARK R

ART UNIT

PAPER NUMBER

2625

NOTIFICATION DATE

DELIVERY MODE

01/26/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary	Application No. 10/730,110	Applicant(s) MORIKAWA ET AL.	
	Examiner Mark R. Milia	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6,8,9,11,13,14 and 16-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6,8,9,11,13,14 and 16-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/13/09 has been entered. Currently, claims 1, 3-4, 6, 8-9, 11, 13-14, and 16-19 are pending.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 6, and 11 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Art Unit: 2625

4. Claims 1, 3-4, 6, 8-9, 11, 13-14, and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S Patent No. 6,504,621 to Salgado in view of U.S. Patent No. 6,381,031 to Mishima as cited in the Information Disclosure Statement dated 12/9/03.

Regarding claim 1, Salgado discloses a data processing apparatus, comprising: an image reader for reading an original (see Fig. 1 and column 6 lines 6-12), a receiver capable of receiving an external job transmitted from an outside (see Figs. 1, 2, and 6-10 and column 6 lines 39-50, image input terminal IIT receives jobs via a network service module **14**, such a job may originate from a host device), a print device for printing data of the external job received by said receiver (see Fig. 1 and column 6 lines 17-21), one or a plurality of compressing/expanding devices for compressing the image data of the scanning job or the data of the external job and expanding the compressed data (see column 8 lines 45-49), an operation device for instructing an activation of the scanning job in accordance with an operation of a user (see column 6 lines 6-7, and column 10 line 45-column 11 line 26, VCM **16** coordinates the operation of the scanner and printer based on a Key Operation/System Administrator, KO/SA algorithm), and a controller that discriminates whether an activation instruction of the scanning job is made by said operation device or from an outside in cases where a request for processing the image data of the scanning job is made when the data of the external job is being processed, and controls execution of the external job and the scanning job depending on the discrimination result (see Figs. 8-10, column 10 line 45-column 11 line 6, column 11 lines 16-20, 29-31, and 40-42, column 13 lines 54-60, column 14 lines 47-

Art Unit: 2625

53, column 15 lines 64-67, column 16 lines 6-16 and 50-51, column 16 line 61-column 17 line 6, and column 17 lines 22-41, controller **44** in conjunction with VCM **16** and the KO/SA algorithm determine priority of jobs to be executed based of factors such as job type and marking resource, therefore if a job resource is being used by a job and another job is received that will utilize the same resource a determination is made based on preset rules to determine which job is to be processed, based on such criteria as job type priority and marking resource priority).

Salgado does not disclose expressly a transmitter capable of transmitting image data of the original read by said image reader as a scanning job to an outside, a controller that discriminates whether an activation instruction of the scanning job is made by said operation device or from an outside in cases where a request for processing the image data of the scanning job by said one or a plurality of compressing/expanding devices is made when the data of the external job is being compressed or expanded by said one or a plurality of compressing/expanding devices, and changes a way to execute the external job and the scanning job by said one or a plurality of compressing/expanding devices depending on the discrimination result.

Mishima discloses a transmitter capable of transmitting image data of the original read by said image reader as a scanning job to an outside (see column 6 lines 45-53), a plurality of compressing/expanding devices for compressing the image data of the scanning job or the data of the external job and expanding the compressed data (see Fig. 6 and column 5 lines 4-65), and a controller that discriminates whether an activation instruction of the scanning job is made by said operation device or from an outside in

Art Unit: 2625

cases where a request for processing the image data of the scanning job by said one or a plurality of compressing/expanding devices is made when the data of the external job is being compressed or expanded by said one or a plurality of compressing/expanding devices, and changes a way to execute the external job and the scanning job by said one or a plurality of compressing/expanding devices depending on the discrimination result (see column 5 lines 4-65, four compression/expansion processors are connected in parallel to each other and based on data being processed the system uses all the compression/expansion processors for compression or expansion, or uses any combination for compression and/or expansion and the changes to the number of processors used for compression or expansion depend of the type of data being processed, either scanning input data or printing output data and is appropriately changed for the most efficient data transfer).

Regarding claim 6, Salgado discloses a data processing method executed by a data processing apparatus comprising one or a plurality of compressing/expanding devices for compressing image data and expanding the compressed data, the data processing method, comprising the steps of: reading an original by an image reader (see Fig. 1 and column 6 lines 6-12), receiving an external job transmitted from an outside (see Figs. 1, 2, and 6-10 and column 6 lines 39-50, image input terminal IIT receives jobs via a network service module **14**, such a job may originate from a host device), and discriminating whether an activation instruction of the scanning job is made by an operation device of the data processing apparatus or from an outside when a request for processing data of the scanning job by said one or a plurality of

Art Unit: 2625

compressing/expanding devices when the data of the external job is currently being compressed or expanded by said one or a plurality of compressing/expanding devices, and controls the execution of the external job and that of the scanning job by one or plurality of compressing/expanding devices depending on the discrimination result (see Figs. 8-10, column 10 line 45-column 11 line 6, column 11 lines 16-20, 29-31, and 40-42, column 13 lines 54-60, column 14 lines 47-53, column 15 lines 64-67, column 16 lines 6-16 and 50-51, column 16 line 61-column 17 line 6, and column 17 lines 22-41, controller **44** in conjunction with VCM **16** and the KO/SA algorithm determine priority of jobs to be executed based of factors such as job type and marking resource, therefore if a job resource is being used by a job and another job is received that will utilize the same resource a determination is made based on preset rules to determine which job is to be processed, based on such criteria as job type priority and marking resource priority).

Salgado does not disclose expressly transmitting image data of the original read by the image reader to an outside as a scanning job, discriminating whether an activation instruction of the scanning job is made by an operation device or from an outside when a request for processing data of the scanning job by said one or a plurality of compressing/expanding devices when the data of the external job is currently being compressed or expanded by said one or a plurality of compressing/expanding devices, and changing a way to execute the external job and the scanning job by said one or a plurality of compressing/expanding devices depending on the discrimination result.

Mishima discloses transmitting image data of the original read by the image reader to an outside as a scanning job (see column 6 lines 45-53), a plurality of compressing/expanding devices for compressing the image data and expanding the compressed data (see Fig. 6 and column 5 lines 4-65), discriminating whether an activation instruction of the scanning job is made by an operation device or from an outside when a request for processing data of the scanning job by said one or a plurality of compressing/expanding devices when the data of the external job is currently being compressed or expanded by said one or a plurality of compressing/expanding devices, and changing a way to execute the external job and the scanning job by said one or a plurality of compressing/expanding devices depending on the discrimination result (see column 5 lines 4-65, four compression/expansion processors are connected in parallel to each other and based on data being processed the system uses all the compression/expansion processors for compression or expansion, or uses any combination for compression and/or expansion and the changes to the number of processors used for compression or expansion depend of the type of data being processed, either scanning input data or printing output data and is appropriately changed for the most efficient data transfer).

Regarding claim 11, Salgado discloses a data processing apparatus, comprising: an image reader for reading an original (see Fig. 1 and column 6 lines 6-12), a receiver capable of receiving an external job transmitted from an outside (see Figs. 1, 2, and 6-10 and column 6 lines 39-50, image input terminal IIT receives jobs via a network service module **14**, such a job may originate from a host device), a

Art Unit: 2625

compressing/expanding device for compressing data and expanding the compressed data (see column 8 lines 45-49), an operation device for instructing an activation of a scanning job in accordance with an operation of a user (see column 6 lines 6-7, and column 10 line 45-column 11 line 26, VCM **16** coordinates the operation of the scanner and printer based on a Key Operation/System Administrator, KO/SA algorithm), and a controller that discriminates whether the activation instruction of the scanning job is made by said operation device or from an outside in cases where a request for processing the image data of the scanning job by said compressing/expanding device is made when data of the external job is currently being compressed or expanded by said compressing/expanding device, and controls execution of the external job and that of the scanning job by said compressing/expanding device depending on the discrimination result (see Figs. 8-10, column 10 line 45-column 11 line 6, column 11 lines 16-20, 29-31, and 40-42, column 13 lines 54-60, column 14 lines 47-53, column 15 lines 64-67, column 16 lines 6-16 and 50-51, column 16 line 61-column 17 line 6, and column 17 lines 22-41, controller **44** in conjunction with VCM **16** and the KO/SA algorithm determine priority of jobs to be executed based of factors such as job type and marking resource, therefore if a job resource is being used by a job and another job is received that will utilize the same resource a determination is made based on preset rules to determine which job is to be processed, based on such criteria as job type priority and marking resource priority).

Salgado does not disclose expressly a transmitter capable of transmitting image data of the original read by said image reader as a scanning job to an outside, a

Art Unit: 2625

controller that discriminates whether the activation instruction of the scanning job is made by said operation device or from an outside in cases where a request for processing the image data of the scanning job by said compressing/expanding device is made when the data of the external job is currently being compressed or expanded by said compressing/expanding device, and controls execution of the external job and the scanning job by said compressing/expanding device depending on the discrimination result.

Mishima discloses a transmitter capable of transmitting an image data of the original read by said image reader as a scanning job to an outside (see column 6 lines 45-53), a compressing/expanding device for compressing data and expanding the compressed data (see Fig. 6 and column 5 lines 4-65), and a controller that discriminates whether the activation instruction of the scanning job is made by said operation device or from an outside in cases where a request for processing the image data of the scanning job by said compressing/expanding device is made when data of the external job is currently being compressed or expanded by said compressing/expanding device, and changes a way to execute the external job and that of the scanning job by said compressing/expanding device depending on the discrimination result (see column 5 lines 4-65, four compression/expansion processors are connected in parallel to each other and based on data being processed the system uses all the compression/expansion processors for compression or expansion, or uses any combination for compression and/or expansion and the changes to the number of processors used for compression or expansion depend of the type of data being

Art Unit: 2625

processed, either scanning input data or printing output data and is appropriately changed for the most efficient data transfer).

KSR analysis – Applying a Known Technique to a Known Device (Method, or Product) Ready for Improvement to Yield Predictable Results

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the use of plural compressing/expanding devices to process image data in parallel and adjust image data routing to the compressing/expanding devices depending on the type of image process being performed, as described by Mishima, with the system of Salgado. Salgado discloses a system that assigns priority to jobs based on where they originate, job type, or available system resources. Salgado also acknowledges that compression/decompression of image data is necessary in the processing of image data. Mishima discloses a system for performing compression/expansion including four compression/expansion processing sections. Mishima discloses three modes in which the system executes, (image input mode, copy mode, and printing mode). In image input mode, which performs only reading of the image data with the image reader section (scanner), all four compression/expansion processing sections are used for compression. In copy mode, two of the four compression/expansion processing sections are used for compression and the other two compression/expansion processing sections are used for expansion. In print mode, all four compression/expansion processing sections are used for expansion. Specifically taking the case of a copy mode into consideration, a copy mode is made up of two parts, scanning and printing, and therefore two separate

Art Unit: 2625

processes are occurring in parallel and the compression/elongation processing sections are utilized to optimize processing by using two of the four compression/expansion processing sections for compression and the other two compression/expansion processing sections for expansion. In the setting, the number of the compression/expansion processors for compressions and that of expansion are changed appropriately for the most efficient data transfer. Therefore, based on the source of the image data and the type of processing, execution of the compression/expanding device is controlled appropriately. It would have been obvious to one of ordinary skill in the art that in executing the invention set forth by Salgado that adjustments to the manner in which the compressing/decompressing devices operate, such as by compressing/decompressing an external job and a scanning job in parallel, are needed to successfully perform the interruption processing of image data, such as walk-up jobs like scanning/copying. Mishima presents a method for such compression/decompression adjustments based on the image processing being performed.

Therefore, it would have been obvious to combine Mishima with Salgado to obtain the invention as specified in claims 1, 6, and 11.

Regarding claims 3, 8, and 13, Mishima further discloses wherein said controller makes said one or plurality of compressing/expanding devices execute the processing of the external job and that of the scanning job in parallel by switching the processing of the external job and that of the scanning job in turn (see column 5 lines 4-65).

Regarding claims 4, 9, and 14, Mishima further discloses wherein said controller assigns at least one of said plurality of compressing/expanding devices to the processing of the external job and that of the scanning job, respectively, to thereby execute these processing in parallel (see column 5 lines 4-65).

Regarding claim 16, Salgado further discloses a print device for printing the data of the external job received by said receiver (see Fig. 1 and column 6 lines 17-21).

Regarding claims 17-19, Salgado further discloses wherein said controller makes said one or plurality of compressing/expanding devices execute the processing of the scanning job after a completion of the processing of the external job when it is discriminated that the activation instruction of the scanning job is made from an outside (see column 6 lines 53-63, column 8 lines 45-49, column 10 lines 53-57, column 16 line 61-column 17 line 6, and column 17 lines 22-41, a compressor **62** is coupled with a scanner (IIT) **18** and a decompressor **64** is coupled with a printer (IOT) **20**. Salgado further states that depending on the resource to be used, i.e. scanner, printer, fax, jobs are placed in different queues, each being associated with a different resource. Thus, a scan job and a net print job can be performed simultaneously, or in parallel, because the two jobs do not use the same system resource. To explain further, the scan job would utilize the compressor **62** and the scanner **18** and the net print job would utilize the decompressor **64** and the printer **20**) and Mishima further discloses wherein said controller makes said one or plurality of compressing/expanding devices execute processing of the external job and that of the scanning job in parallel when it is discriminated that the activation instruction of the scanning job is made by said

Art Unit: 2625

operation device (see column 5 lines 4-65, reference discloses a copy mode, which is made up of a scanning and printing being performed in parallel, in which two of the four compression/elongation processing sections are used for compression and the other two compression/elongation processing sections are used for elongation).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. To further show the state of the art please refer to the attached Notice of References Cited.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Milia whose telephone number is (571)272-7408. The examiner can normally be reached M-F 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached at (571) 272-7437. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2625

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mark R. Milia
Examiner
Art Unit 2625

/Mark R. Milia/
Examiner, Art Unit 2625

/David K Moore/
Supervisory Patent Examiner, Art Unit 2625